

### **REMARKS**

Claims 1, 2, 3, and 9-12 are pending and under consideration in this application. Claims 4-8 are canceled herein without prejudice or disclaimer. Claims 1, 2, 3, 9, 10, and 11 are amended herein. Claim 12 is added herein. Claim 12 reads on the elected embodiment. Support for the amendments to the claims, and for the new claim, may be found in the claims as originally filed and at page 2, lines 16-31, page 3, lines 21-23, and at page 4, lines 1-11 of the specification. Reconsideration is requested based on the foregoing amendment and the following remarks.

#### **Advisory Action mailed April 8, 2008:**

The Applicants acknowledge with appreciation the note on the Continuation Sheet attached to the Advisory Action mailed April 8, 2008 to the effect that:

Newly proposed claim 1 now sets forth a positively recited combination of a gripper and an annular frame.

The Continuation Sheet asserts further that:

Also, newly proposed claim 12 is confusing in that its preamble is inconsistent with claim 1 from which it depends.

Claim 12 is now an independent claim, rather than a dependent claims. Further favorable consideration is requested.

#### **Claim Rejections - 35 U.S.C. § 102:**

Claims 1-3, 9, and 10 were rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,765,889 to Nam et al. (hereinafter "Nam"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

Claim 1 recites:

A film provided for bearing a wafer is stretched onto said frame.

Nam neither teaches, discloses, nor suggests "a film provided for bearing a wafer is stretched onto said frame," as recited in claim 1. Nam, in fact, mentions no film at all. In Nam, rather, the wafer is supported horizontally by vacuum-absorption in association with the vacuum-absorbing projections. In particular, as described at column 2, lines 14-21:

The supporting means comprises a plurality of pins which are formed on the fingers and on the body. Moreover, a supporting projection may be provided at a

connection point where the branch vacuum lines are branched from the main vacuum line and which has an opening in communication with the main vacuum line, so as to horizontally support the wafer by vacuum-absorption in association with the vacuum-absorbing projections.

Since, in Nam, the wafer is supported horizontally by vacuum-absorption in association with the vacuum-absorbing projections, Nam has no "film provided for bearing a wafer is stretched onto said frame," as recited in claim 1.

In Nam, moreover, a plurality of pins 20 support a wafer horizontally thereon while the arm holds the wafer by vacuum-absorption. In particular, as described at column 2, lines 49-54:

FIG. 2A shows a novel wafer transfer robot arm in accordance with an embodiment of present invention, which includes a body 11, two fingers 12 extending in parallel from respective ends of the body 11, and a plurality of pins 20 for horizontally supporting a wafer thereon while the arm holds the wafer by vacuum-absorption.

Since, in Nam, a plurality of pins 20 support a wafer horizontally thereon while the arm holds the wafer by vacuum-absorption, Nam has no "film provided for bearing a wafer is stretched onto said frame," as recited in claim 1.

In Nam, moreover, three horizontal supporting pins 20 are provided to horizontally support a wafer on the arm while the wafer is held by vacuum-absorption at the vacuum-absorbing projections 14 on the fingers 12. In particular, as described at column 2, lines 66 and 67, continuing at column 3, lines 1-7:

In this embodiment, three horizontal supporting pins 20 are provided to horizontally support a wafer on the arm while the wafer is held by vacuum-absorption at the vacuum-absorbing projections 14 on the fingers 12. One pin is formed on the body 11, and the remaining pins are formed on the two fingers 12, respectively. The pins on the fingers 12 are spaced apart from the vacuum-absorbing projections 14, respectively. The height of each pin 20 is equal to or less than that of each vacuum-absorbing projections 14.

Since, in Nam, three horizontal supporting pins 20 are provided to horizontally support a wafer on the arm while the wafer is held by vacuum-absorption at the vacuum-absorbing projections 14 on the fingers 12, Nam has no "film provided for bearing a wafer is stretched onto said frame," as recited in claim 1.

Claim 1 recites further:

Said frame with the film stretched thereon.

Nam neither teaches, discloses, nor suggests a "frame with the film stretched thereon,"

as recited in claim 1. Nam, rather, describes no film at all, as discussed above, let alone a "frame with the film stretched thereon," as recited in claim 1. Claim 1 is submitted to be allowable. Withdrawal of the rejection of claim 1 is earnestly solicited.

Claims 2, 3, 9, and 10 depend from claim 1 and add additional distinguishing elements. Claims 2, 3, 9, and 10 are thus also submitted to be allowable. Withdrawal of the rejection of claims 2, 3, 9, and 10 is earnestly solicited.

**Claim Rejections - 35 U.S.C. § 103:**

Claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nam in view of U.S. Patent No. 6,068,316 to Kim et al. (hereinafter "Kim"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

Claim 11 depends from claim 1 and adds further distinguishing elements. Nam neither teaches, discloses, nor suggests "a film provided for bearing a wafer is stretched onto said frame" or a "frame with the film stretched thereon," as discussed above with respect to the rejection of claim 1. Kim does not either, and thus cannot make up for the deficiencies of Nam with respect to claim 11. In Kim, rather, a tweezer of a wafer holder endures the load of the wafer. In particular, as described at column 2, lines 9-16:

Accordingly, in order to overcome one or more of the problems associated with the conventional art, it is an object of the present invention is to provide a large diameter wafer conveying system which can hold a wafer more stably, such that a tweezer of a wafer holder endures the load of the wafer in a sufficiently dispersed manner so as to prevent the wafer from being scratched, or generating contaminating particles, or being broken.

Since, in Kim, a tweezer of a wafer holder endures the load of the wafer, Kim has no "film provided for bearing a wafer is stretched onto said frame" or "frame with the film stretched thereon," either, and thus cannot make up for the deficiencies of Nam with respect to claim 11 in any case.

In Kim, moreover, the wafer holder 10 comprises a plurality of tweezers 12, each of which can hold a wafer. In particular, as described at column 3, lines 64-67, continuing at column 4, lines 1-4:

Also, as shown in FIGS. 4 through 7, the wafer holder 10 comprises a plurality of tweezers 12, each of which can hold a wafer, and a tweezer block 14 for fixing the plurality of tweezers 12. The plurality of tweezers 12 are provided with a plurality of contacting portions 12a which are spaced from each other by a certain horizontal distance, with the contacting portions 12a defining a fork-shaped

configuration (see FIG. 6).

Since, in Kim, the wafer holder 10 comprises a plurality of tweezers 12, each of which can hold a wafer, Kim has no "film provided for bearing a wafer is stretched onto said frame" or "frame with the film stretched thereon," either, and thus cannot make up for the deficiencies of Nam with respect to claim 11 in any case. Thus, even if Nam and Kim were combined as proposed in the final Office Action, claim 11 would not result.

**New claim 12:**

Claim 12 recites:

Wherein a film provided for bearing a wafer is stretched onto said frame.

None of the cited references teach, disclose, or suggest "a film provided for bearing a wafer is stretched onto said frame," as discussed above with respect to the rejection of claim 1. Claim 12 is thus believed to be allowable.

**Conclusion:**

Accordingly, in view of the reasons given above, it is submitted that all of claims 1, 2, 3, and 9-12 are allowable over the cited references. Allowance of all claims 1, 2, 3, and 9-12 and of this entire application is therefore respectfully requested.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Application Serial No. 10/539,774  
Request for Continued Examination filed April 30, 2008  
Reply to final Office Action mailed February 28, 2008

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: April 30, 2008

By: /Thomas E. McKiernan/  
Thomas E. McKiernan  
Registration No. 37,889

1201 New York Avenue, N.W., 7th Floor  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501